

William C Hockaday

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

7,373
citations

186265
28
h-index

197818
49
g-index

52
all docs

52
docs citations

52
times ranked

8292
citing authors

#	ARTICLE	IF	CITATIONS
1	Biochar effects on soil biota – A review. <i>Soil Biology and Biochemistry</i> , 2011, 43, 1812-1836.	8.8	3,514
2	Comparison of quantification methods to measure fire-derived (black/elemental) carbon in soils and sediments using reference materials from soil, water, sediment and the atmosphere. <i>Global Biogeochemical Cycles</i> , 2007, 21, .	4.9	483
3	Hydrologic properties of biochars produced at different temperatures. <i>Biomass and Bioenergy</i> , 2012, 41, 34-43.	5.7	394
4	Temperature Sensitivity of Black Carbon Decomposition and Oxidation. <i>Environmental Science & Technology</i> , 2010, 44, 3324-3331.	10.0	314
5	Direct molecular evidence for the degradation and mobility of black carbon in soils from ultrahigh-resolution mass spectral analysis of dissolved organic matter from a fire-impacted forest soil. <i>Organic Geochemistry</i> , 2006, 37, 501-510.	1.8	312
6	The transformation and mobility of charcoal in a fire-impacted watershed. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 3432-3445.	3.9	238
7	Electrospray and photoionization mass spectrometry for the characterization of organic matter in natural waters: a qualitative assessment. <i>Limnology and Oceanography: Methods</i> , 2009, 7, 81-95.	2.0	237
8	Aromaticity and degree of aromatic condensation of char. <i>Organic Geochemistry</i> , 2015, 78, 135-143.	1.8	207
9	Multiple Controls on the Chemical and Physical Structure of Biochars. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 3587-3597.	3.7	145
10	Earthworm avoidance of biochar can be mitigated by wetting. <i>Soil Biology and Biochemistry</i> , 2011, 43, 1732-1737.	8.8	136
11	Characterization of humic like substances obtained by chemical oxidation of eucalyptus charcoal. <i>Organic Geochemistry</i> , 2005, 36, 1480-1489.	1.8	120
12	Nitrogen, biochar, and mycorrhizae: Alteration of the symbiosis and oxidation of the char surface. <i>Soil Biology and Biochemistry</i> , 2013, 58, 248-254.	8.8	90
13	White-Rot Basidiomycete-Mediated Decomposition of C ₆₀ Fullerol. <i>Environmental Science & Technology</i> , 2009, 43, 3162-3168.	10.0	89
14	New revelations on the nature of organic matter in ice cores. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	84
15	A preliminary assessment of the interactions between the capping agents of silver nanoparticles and environmental organics. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 435, 22-27.	4.7	71
16	Molecular trade-offs in soil organic carbon composition at continental scale. <i>Nature Geoscience</i> , 2020, 13, 687-692.	12.9	67
17	Native American fire management at an ancient wildland-urban interface in the Southwest United States. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	62
18	Mineralogical controls on soil black carbon preservation. <i>Global Biogeochemical Cycles</i> , 2012, 26, .	4.9	61

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19	Topographic controls on black carbon accumulation in Alaskan black spruce forest soils: implications for organic matter dynamics. <i>Biogeochemistry</i> , 2010, 100, 39-56.	3.5	56
20	Measurement of soil carbon oxidation state and oxidative ratio by ¹³ C nuclear magnetic resonance. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	55
21	Soil organic matter composition and quality across fire severity gradients in coniferous and deciduous forests of the southern boreal region. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1124-1141.	3.0	54
22	Tradeoffs in soil carbon protection mechanisms under aerobic and anaerobic conditions. <i>Global Change Biology</i> , 2020, 26, 3726-3737.	9.5	52
23	Dynamics of decadal cycling carbon in subsurface soils. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	48
24	Controls on the origin and cycling of riverine dissolved inorganic carbon in the Brazos River, Texas. <i>Biogeochemistry</i> , 2011, 104, 275-291.	3.5	46
25	Toward a "Molecular Thermometer" to Estimate the Charring Temperature of Wildland Charcoals Derived from Different Biomass Sources. <i>Environmental Science & Technology</i> , 2013, 47, 11490-11495.	10.0	34
26	Decadal-scale litter manipulation alters the biochemical and physical character of tropical forest soil carbon. <i>Soil Biology and Biochemistry</i> , 2018, 124, 199-209.	8.8	32
27	Organic structural properties of kerogen as predictors of source rock type and hydrocarbon potential. <i>Fuel</i> , 2016, 184, 792-798.	6.4	31
28	Solid-state NMR reveals differential carbohydrate utilization in diapausing <i>Culex pipiens</i> . <i>Scientific Reports</i> , 2016, 6, 37350.	3.3	30
29	Chemical and Isotopic Thresholds in Charring: Implications for the Interpretation of Charcoal Mass and Isotopic Data. <i>Environmental Science & Technology</i> , 2015, 49, 14057-14064.	10.0	28
30	Effects of long-term soil amendment with sewage sludges on soil humic acid thermal and molecular properties. <i>Chemosphere</i> , 2008, 73, 1838-1844.	8.2	27
31	Soil Carbon and Nitrogen Responses to Nitrogen Fertilizer and Harvesting Rates in Switchgrass Cropping Systems. <i>Bioenergy Research</i> , 2017, 10, 456-464.	3.9	25
32	Pyrogenic carbon erosion after the Rim Fire, Yosemite National Park: The Role of Burn Severity and Slope. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 432-449.	3.0	25
33	Biochemical Suitability of Crop Residues for Cellulosic Ethanol: Disincentives to Nitrogen Fertilization in Corn Agriculture. <i>Environmental Science & Technology</i> , 2011, 45, 2013-2020.	10.0	24
34	Characterization of Slow-Pyrolysis Bio-Oils by High-Resolution Mass Spectrometry and Ion Mobility Spectrometry. <i>Energy & Fuels</i> , 2015, 29, 744-753.	5.1	21
35	Forest soil carbon oxidation state and oxidative ratio responses to elevated CO ₂ . <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 1797-1811.	3.0	19
36	The effect of fertilization levels and genetic deployment on the isotopic signature, constituents, and chemistry of soil organic carbon in managed loblolly pine (<i>Pinus taeda</i> L.) forests. <i>Forest Ecology and Management</i> , 2015, 355, 91-100.	3.2	17

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37	Short-Term Changes in Physical and Chemical Properties of Soil Charcoal Support Enhanced Landscape Mobility. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 3098-3107.	3.0	16
38	Molecular and isotopic composition of modern soils derived from kerogen-rich bedrock and implications for the global C cycle. <i>Biogeochemistry</i> , 2019, 143, 239-255.	3.5	15
39	Effect of ocean oxidation on the chemical structure of marine kerogen. <i>Organic Geochemistry</i> , 2017, 106, 1-12.	1.8	14
40	Sorption temperature and the stability of iron-bound soil organic matter. <i>Geoderma</i> , 2019, 341, 93-99.	5.1	13
41	High carbon losses from oxygen-limited soils challenge biogeochemical theory and model assumptions. <i>Global Change Biology</i> , 2021, 27, 6166-6180.	9.5	13
42	Controls on the oxidative ratio of net primary production in agricultural ecosystems. <i>Biogeochemistry</i> , 2014, 121, 581-594.	3.5	11
43	Organic chemical structure relationships to maturity and stability in shales. <i>International Journal of Coal Geology</i> , 2020, 223, 103448.	5.0	10
44	Biochar Volatile Matter and Feedstock Effects on Soil Nitrogen Mineralization and Soil Fungal Colonization. <i>Sustainability</i> , 2021, 13, 2018.	3.2	9
45	Changes in fire-derived soil black carbon storage in a subhumid woodland. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1807-1819.	3.0	7
46	Plant species, not climate, controls aboveground biomass O ₂ :CO ₂ exchange ratios in deciduous and coniferous ecosystems. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017, 122, 2314-2324.	3.0	7
47	Analysis of volatile organic compound mixtures using radio-frequency ionization/mass spectrometry. <i>Analytical Methods</i> , 2014, 6, 4982.	2.7	4
48	Exploring Educators' Environmental Education Attitudes and Efficacy: Insights Gleaned from a Texas Wetland Academy. <i>International Journal of Science Education, Part B: Communication and Public Engagement</i> , 2016, 6, 303-324.	1.5	4
49	Nitrogen-fixing symbiosis inferred from stable isotope analysis of fossil tree rings from the Oligocene of Ethiopia. <i>Geology</i> , 2017, , G39213.1.	4.4	1
50	Structure-Energy-Photochemical Activity Relationships in Fluorophoric Water-Extracted Organic Matter from (Un)charred Plant Materials. <i>ACS ES&T Water</i> , 2021, 1, 859-870.	4.6	1
51	Probing Temperature-Dependent Organo-mineral Interactions with Molecular Spectroscopy and Quartz Crystal Microgravimetry. , 2014, , 189-195.		0
52	Sorption Dynamics and Energetics of Cinnamic Acid and Its Derivatives at the Ferrihydrite-Water Interface Determined by Flow-Adsorption Microcalorimetry. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 1022-1030.	2.7	0